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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/088,942	03/21/2002	Bong Jin Chung	PAS205PCTUS	4648

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03/02/2006

EXAMINER
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ROGERS, JAMES WILLIAM

ART UNIT	PAPER NUMBER
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1618

DATE MAILED: 03/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/088,942

Applicant(s)

CHUNG ET AL.

Examiner

James W. Rogers

Art Unit

1618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 5 is/are rejected.
- 7) ☐ Claim(s) 1 and 5 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. ____   |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____  | 6) <input type="checkbox"/> Other: ____                                     |

***Response to Amendment***

The amendment filed 12/08/2005 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: amended claims 1 and 5 contain a surfactant not described in the specification; that surfactant being naphthalenesulfonate formalin condensate, the sodium salt of that compound was mentioned in the specification and does not have to be cancelled.

Applicant is required to cancel the new matter in the reply to this Office Action.

***Claim Objections***

Claims 1 and 5 are objected to because of the following informalities: the molecule octybenzenesulfate appears to have a typo perhaps the applicant can rewrite the molecule name to octylbenzenesulfonate. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The description for claim 1 with regard to the amount of pyrophyllite as an extender is confusing, for instance it is not clear what "the rest of" encompasses.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamashita et al. (US 4,764,206) in view of Tadayuki et al. (US 5,668,086) in view of Mayer et al. (US 6,030,924) and further in view of Phillops (US 3,836,352).

Yamashita et al. teaches powder granules of Paraquat Dichloride (15%), surfactant (5%), polyvinyl pyrrolidone (60%) and white carbon (20%), See example 4 and example 22. Polyvinyl pyrrolidone is a known disintegrant listed in the applicants specification and white carbon is a known extender also listed in the applicants specification. No patentable weight was given to the kneading using a granulator in claim 1 because the examples refer to preparing powders of paraquat by mixing and

Art Unit: 1618

grinding the paraquat and ingredients. Yamashita also states that water was added to the mixture containing the paraquat then granulated using a fluid bed type granulator and then dried, See column 5 lines 29-32, column 6 lines 11-18, column 7 lines 39-46 and lines 66-68 and column 8 lines 1-4. No experimental conditions for the method were claimed (e.g. temperature) and the examiner assumed the components were mixed at room temperature.

The Yamashita patent does not teach the specific disintegrant listed by the applicants nor does the patent list a %wt within the range listed by the applicants. The Yamashita patent also does not teach the use of pyrophillite as an extender nor does the patent describe the specific examples of surfactants listed by the applicants.

Tadayuki et al. teaches herbicidal composition in the form of granules comprising paraquat, anionic surfactant and chelating agent, See column 1 lines 50-55. Tadayuki described the use of alkyl naphthalenesulfonates as well as its sodium salt as anionic surfactants, in which the alkyl groups were described to have between 4-26 carbon atoms, this range would include the claimed surfactant octylnaphthalenesulfonate and sodium octylnaphthalenesulfonate, See claims 3,4, column 2 lines 9-67. Tadayuki also discloses a method of preparing granules, See column 4 lines 58-65 and examples 1 and 2.

The Tadayuki patent does not teach a disintegrant or an extender in the composition.

Mayer et al. teaches solid formulations obtained by low pressure extrusion, the solid formulations could use 1-5 % of a disintegrant, one of the examples being

Art Unit: 1618

ammonium sulfate, See column 7 lines 53-64. Mayer disclosed a method of preparing granules by mixing the components of the solid formulation with water (15 to 20% 10 w/w) then granulated the mixture by an extrusion technique and dried with a fluidized bed dryer at a temperature of about 70° C, the amount of water used in the mixing step and the temperature in which the granule was dried are both within the range provided by the applicants, See column 12 lines 24-40.

The Mayer patent does not teach paraquat dichloride as an active ingredient, pyrophillite is not used as an extender and none of the specific examples of surfactants listed are used.

Phillips teaches a herbicidal method utilizing substituted heterocyclic compounds and used pyrophillite as an extender, See column 13 lines 19-33 and column 14 lines 40-45 and 48.

Phillips does not teach paraquat dichloride as an active ingredient, the use of a surfactant nor the use of a disintegrant.

In regards to claim 5 the time of mixing the components and the time in which the granules are dried are just optimizations normally dealt with in granule formulation and will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating the time of mixing and drying is critical.. Where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235(CCPA 1955). The normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a

Art Unit: 1618

disclosed set of percentage ranges is the optimum combination of percentages.”); In re Hoeschele, 406 F.2d 1403, 160 USPQ 809(CCPA 1969).

It would be obvious to a person of ordinary skill in the art at the time the claimed invention was made to combine the art described in the documents above because: Yamashita teaches powder granules of paraquat dichloride containing an extender, a surfactant and a disintegrant all within the wt% range provided by the applicants and Yamashita teaches mixing the above components with water and granulating them using a granulator, Tadayuki teaches two of the specific examples of a surfactant listed by the applicants, Mayer teaches the same disintegrant employed by the applicants within the wt% range listed and Mayer also teaches mixing the components of the composition with water (15 to 20% 10 w/w) and drying using a fluidized bed dryer at a temperature of about 70° C and Phillips teaches the use of pyrophillite as an extender. The motivation for combining the above would be to provide a water dispersable granule containing paraquat dichloride, surfactant, disintegrant and an extender and the methodology to prepare that water dispersible granule containing paraquat with the advantage of providing a water dispersible granule with a superior herbicidal effect on weeds.

### ***Conclusion***

No claims are allowed at this time.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James W. Rogers whose telephone number is (571) 271-7838. The examiner can normally be reached on 8:30-5:00.

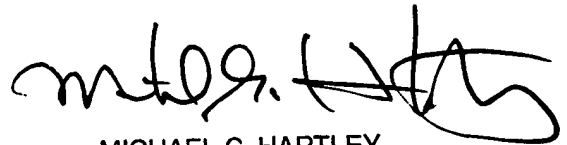
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Hartley can be reached on (571) 271-0616. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Art Unit: 1618

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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A handwritten signature in black ink, appearing to read "m. g. hartley", with a stylized flourish at the end.

MICHAEL G. HARTLEY  
SUPERVISORY PATENT EXAMINER